

IN THE CLAIMS:

Please amend the claims as indicated below.

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The method according to claim 2 11, wherein  
~~characterized in that~~ the step of detecting the second signal portion further comprises filtering the  
second signal portion with a complex-valued processing filter of two IIR filters with biquad  
structure, capable of sampling said second signal portion at a sampling frequency which is twice  
the frequency of said second signal portion.

4. (Currently Amended) The method according to claim 2 11, wherein  
~~characterized in that~~ said first signal portion comprises OFDM as said ~~electromagnetic~~ first  
signal coding technique of said first signal portion and said second signal portion comprises  
OFDM as said ~~electromagnetic~~ second signal coding technique of said second signal portion.

5. (Currently Amended) The method according to claim 2 11, wherein  
~~characterized in that~~ said first signal portion comprises BPSK, QPSK or other PSK as said first  
~~electromagnetic~~ signal coding technique of said first signal portion and said second signal  
portion comprises CCK, QAM or PSK as said second ~~electromagnetic~~ signal coding technique  
of said second signal portion.

6. (Cancelled)

7. (New) A system for accessing a wireless network from a wireless station, comprising:

a memory that stores computer-readable code; and

a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to:

detect a first signal portion in a received data signal; and

detect a second signal portion in said received data signal, wherein said second signal portion follows said first signal portion, and said second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by said first signal portion, wherein said step of detecting a second signal portion in said received data signal further comprises the step of determining an auto-correlation between a first part of said second signal portion and a third part of said second signal portion.

8. (New) The system according to claim 7, wherein said processor is further configured to filter the second signal portion with a complex-valued processing filter of two IIR filters with biquad structure, capable of sampling said second signal portion at a sampling frequency which is twice the frequency of said second signal portion.

9. (New) The system according to claim 7, wherein said first signal portion comprises OFDM as said first signal coding technique of said first signal portion and said second signal portion comprises OFDM as said second signal coding technique of said second signal portion.

10. (New) The method according to claim 7, wherein said first signal portion comprises BPSK, QPSK or other PSK as said first signal coding technique of said first signal portion and said second signal portion comprises CCK, QAM or PSK as said second signal

coding technique of said second signal portion.

11. (New) A method for accessing a wireless network from a wireless station, comprising the steps of:

- 5                    detecting a first signal portion in a received data signal; and
- detecting a second signal portion in said received data signal, wherein said second signal portion follows said first signal portion, and said second signal portion utilizes a second signal coding technique different from a first signal coding technique utilized by said first signal portion, wherein said step of detecting a second signal portion in said received data signal further
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